# KPT/KPSE CONNECTORS



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# Introduction

The miniature circular connectors series KPT and KPSE from ITT Cannon are manufactured acc. to MIL-C-26482 with three point bayonet coupling and five-keyway polarization. They offer general purpose solder connectors and high performance crimp connectors. The broad product range provides the most complete familiy of connectors conform to MIL-C-26482, NFC 93422 HE 301 model, VG 95328 and LN 29500 specifications.

The versatility of these connectors has been proven by their usage in general as well as in high performance environmental applications.

In addition to the basic series presented in this catalogue, connectors for special applications are available. They include corrosion resistant types, filter connectors for electromagnetic compatability and non-outgasing, radiation resistant versions.

All connectors conform to the above mentioned specifications are fully intermateable and accept a wide range of interchangeable accessories. Thereby design modifications can be achieved more easily and at lower cost with connectors of the KPT/KPSE series.

# **Technical Data**

Material and Finishes	КРТ				KPSE			
Shell	Aluminum allovi o	anductiva aliva drab chra	mata ayar cad	lmium finish	20r OO P 416			
Insulator		Aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416  Polychloroprene Polychloropre						
Grommet and Seal	Aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 Polychloroprene Polychloropren							
Contacts		Inlated						
	Coppor alloy, gold	Piatou			coppor andy, gota platea			
Shell styles					•			
	02 – Box mounting	g receptacle		B – Thr	u-bulkhead receptacle (KPT only)			
Shell sizes								
		e point bayonet		0 6:	Polychloroprene Copper alloy, gold plated  7 – Jam nut receptacle 3 – Plug with 90° termination assemblies – Thru-bulkhead receptacle (KPT only)  – Gland seal for jacketed cable – Gland nut with strain relief for jacketed cab – for potting ee also pages 5 and 8  and B only est duration 48 h he connector shall be free of moisture  3 thru 61 12 thru 24 Crimp			
Service classes								
	8 thru 24 five keyways/three point bayonet A – General duty B – General duty with strain relief E – Grommet seal F – Grommet seal with strain relief  Acc. to VG 95319 Part 2, Test No. 5.9.2 For styles A to E and J to W, Z1, Z2 and Z3 and gaskets sty Test pressure 0,2 bar overpressure Test temperature 25 ± 3°C  – 55 / 125°C min. 500 mating cycles				•			
E – Grommet seal								
	F – Grommet sea	with strain relief		see also	pages 5 and 8			
Water tightness		· ·						
ŭ		· ·	and gaskets	•	•			
On a westing as to make your		25 ± 3℃		The con	nector snall be free of moisture			
Durability								
VIDIALIOII	200 III/S- at 10 to	2000 HZ						
Electrical Data								
Number of contacts	2 thru 61				3 thru 61			
Wire size AWG	16 thru 24				12 thru 24			
Contact termination	Solder							
Outland terrilination	Juluei				Crimp			
Il Illator Ill		Rated current A	Test curre	nt A	•			
	Size AWG			nt A	Millivolt drop mV			
	Size AWG 20	7,5	7,5	nt A	Millivolt drop mV less than 55			
Contact rating	Size AWG 20 16	7,5	7,5	nt A	Millivolt drop mV less than 55			
Contact rating Insulation resistance	Size AWG 20 16 ⊕ 5000 MW	7,5 22,0	7,5 13,0	VDC	Millivolt drop mV less than 55 less than 50			
Contact rating Insulation resistance Service rating	Size AWG 20 16 ⊕ 5000 MW	7,5 22,0 Service class	7,5 13,0 Vrms	VDC 2100	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages			
Contact rating Insulation resistance Service rating Exception	Size AWG 20 16 ⊕ 5000 MW  Test voltage Sea level	7,5 22,0 Service class 1 2	7,5 13,0 Vrms 1500	VDC 2100	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages			
Contact rating  Insulation resistance  Service rating  Exception  Service rating between the	Size AWG 20 16 ⊕ 5000 MW  Test voltage Sea level	7,5 22,0 Service class 1 2	7,5 13,0 Vrms 1500 2300	VDC 2100 3200	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages acc. to MIL-C-26482 and			
Contact rating Insulation resistance Service rating Exception Service rating between the central contact and the housing	Size AWG 20 16 ⊕ 5000 MW  Test voltage Sea level 21336 m	7,5 22,0 Service class 1 2	7,5 13,0 Vrms 1500 2300 375	VDC 2100 3200 535	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages acc. to MIL-C-26482 and VG 96912 are			
Contact rating  Insulation resistance  Service rating  Exception  Service rating between the central contact and the housing of the coaxial contact	Size AWG 20 16 ⊕ 5000 MW  Test voltage Sea level  21336 m (70 000 ft.)	7,5 22,0 Service class 1 2 1 2	7,5 13,0 Vrms 1500 2300 375 550	VDC 2100 3200 535 770	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages acc. to MIL-C-26482 and VG 96912 are permitted			
Contact rating Insulation resistance Service rating Exception Service rating between the central contact and the housing	Size AWG 20 16 ⊕ 5000 MW  Test voltage Sea level  21336 m (70 000 ft.)	7,5 22,0 Service class 1 2 1 2	7,5 13,0 Vrms 1500 2300 375 550 VG 95328	VDC 2100 3200 535 770	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages acc. to MIL-C-26482 and VG 96912 are permitted  MIL-C-26482			
Contact rating Insulation resistance Service rating Exception Service rating between the central contact and the housing	Size AWG 20 16 ⊕ 5000 MW  Test voltage Sea level  21336 m (70 000 ft.)	7,5 22,0 Service class 1 2 1 2	7,5 13,0 Vrms 1500 2300 375 550	VDC 2100 3200 535 770	Millivolt drop mV less than 55 less than 50  With scoop proof connectors operating voltages acc. to MIL-C-26482 and VG 96912 are permitted			

Operating voltage and connector usage

Connectors are equipment which must not be separated or mated when used as per determination. As acc. to specification the connectors are suitable for an operating voltage of 50 V (see Product Safety Information). However, this is only valid when the connectors are free accessible during operation and consequently might be touchable. When the connectors will be operated with line voltage, ITT Cannon offers a solution, too. Please consult factory.

# **KPT General purpose solder contact connectors**





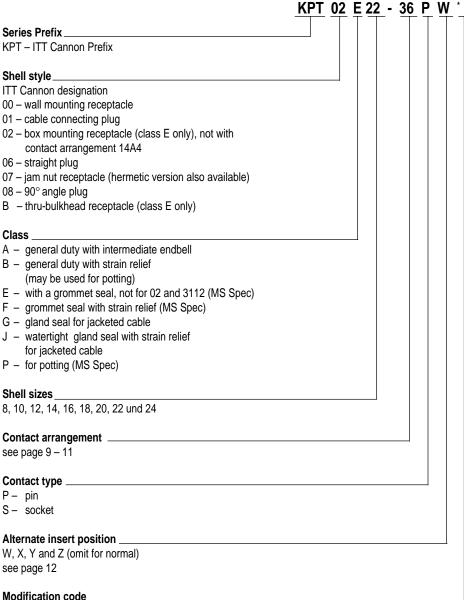
- General purpose
- Solder termination
- Closed entry socket contacts

Series KPT from ITT Cannon offers general purpose connectors, qualified for use in military applications but also widely used in industrial applications calling for a circular connector with fixed contacts for solder termination.

The KPT series is MIL-C-26482 approved and is intermateable with all connectors acc. to the above mentioned specifications.

# **KPT General purpose solder contact connectors**

#### How to order\*



DN - Shrink boot adapter for shell styles 00, 01, 06 and 07

DZ - Endbell for shielding braids and shrink boots.

Class E will always be used for these modifications.

Consult factory for other modifications. Omit first digit (0) of shell style indication when using a modification code.

# \*Note:

The above mentioned order reference explanation refers only to the ITT Cannon ordering system. For other order references according to a specification, please consult the cross reference list on pages 29 - 30.

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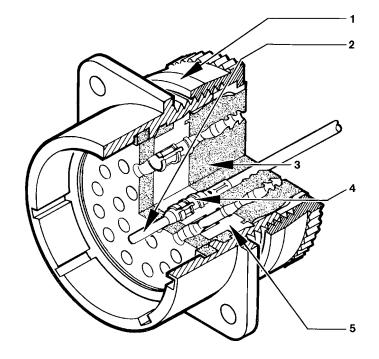
# **KPSE High performance crimp contact connectors**

- High performance
- Crimp termination
- Closed entry socket contacts

Series KPSE environmental, miniature circular, quick disconnect connectors are designed for the exacting requirements of today's electronic industry.

They are intermateable, intermountable and interchangeable with all connectors manufactured acc. to MIL-C-26482, LN 29500, VG 95328, NFC 93422 HE 301 and NFL 54125.

Connectors of ITT Cannon series KPSE have obtained the VDE Expertise No. 63761.



### 1 Standard MIL-C-26482 or NFL 54 125 Hardware mates with any connector designed to MIL-C-26 482, LN 29500 or NF L 54 125 or NF C 93 422, HE 301 model

### 2 Crimp, snap-in contacts

are designed to MIL-C-23216 and can be crimped with the standard M22520/1 crimp tool.

### **CLOSED-ENTRY SOCKET CONTACTS**

eliminate damage from abuse by test probes and help to correct any misaligned pins during engagement.

#### CONTACT INSERTION

is accomplished from the rear of the connector. When the contact is fully inserted, the clip tines snap securely behind the contact shoulder.

### CONTACT EXTRACTION

is accomplished with a front-inserted extraction tool. Pressing the tool plunger pushes the contact out through the rear of the connector.

# 3 Monobloc insulator

does not leave any access to moisture and avoids interfacial empty space.

# 4 Contact retaining clip

is completely encased in a tough plastic wafer to protect the clip from damage.

### Complete moisture sealing

is achieved by combining four seals: shell, peripheral, interfacial and wire seals.

# SHELL SEAL

is effected when the plug shell pushes against the sealing ring in the receptacle when the connectors are mated.

#### PERIPHERAL SEAL

around the edge of the pin insulator is designed so that mating the connector puts tension on the seal and greatly reduces compression set.

#### INTERFACIAL SEAL

is achieved by the insulator faces meeting when the plug and receptacle are mated.

#### WIRE SEAL

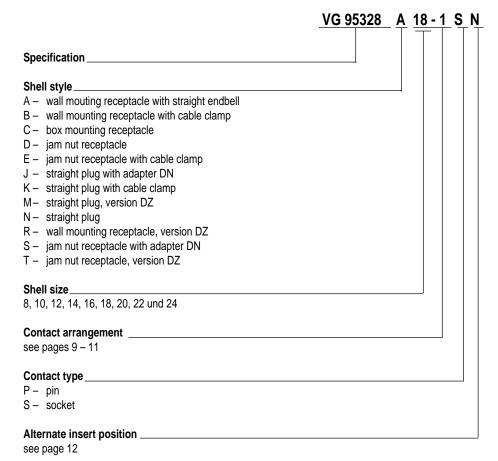
is accomplished by a multiple ripple design, exceeding the wire sealing requirements of MIL-C-26482.

### 5 Positive insert-to-shell mechanical retention

with hard plastic wafer firmly locked into a groove in the shell, in addition to a strong adhesive bond between the insert and shell.

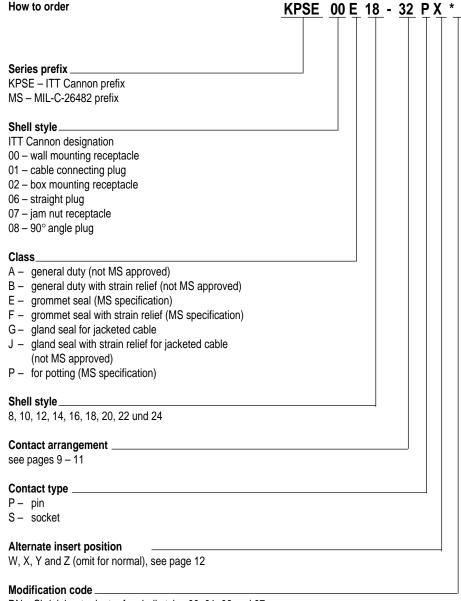
# **KPSE** High performance crimp contact connectors

How to order acc. to VG 95328



**ITT Cannon** 

# **KPSE High performance crimp contact connectors**



DN – Shrink boot adapter for shell styles 00, 01, 06 and 07

DZ – Endbell for shielding braids and shrink boots.

Class E will always be used for these modifications.

Consult factory for other modifications. Omit first digit (0) of shell style indication when using a modification code.

#### \*Note

The above mentioned order reference explanation refers only to the ITT Cannon ordering system. For other order references according to a specification, please consult the cross reference list on pages 29-30.



# **Contact Arrangements**

	No. of contacts	Contact arrangement Contact size	Service rating	Insulator p	position X	Υ	Z	Insulator including	
		AWG						pin	socket
(B)	2	<b>8-2</b> ▲△ 20	1	58	122	-	-		
(•°)	3	<b>8-3 ▲</b> △ 20	1	60	210	-	-		
	3	<b>8-3A</b> △●◇▼ 20	1	60	-	-	-		
٩	3	<b>8-33 ▲</b> ◇△ 16S	1	90	-	-	-		
	4	<b>8-4 ▲</b> △ 16S	1	45	-	-	-		
(F o A o B	6	10-6 ●△◇▼ 20	1	90	-	-	-		
(C A B •	3	12-3 ▲●◇△▼ 16	2	-	-	180	-		
	10	<b>12-10 ▲●</b> ◇△▼ 20	1	60	155	270	295		
E A B D C	5	<b>14-5 ▲</b> △ 16	2	40	92	184	273		
$\begin{pmatrix} & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & \\ & & \\ & $	12	<b>14-12 ▲</b> △ 20 (8) 16 (4)	1	43	90	-	-		

Legende

**▲** KPT  $\, \diamondsuit \,$  KPSE  $\, \blacksquare \,$  LN29500  $\, \triangle \,$  authorized per MIL-C-26482  $\, \blacksquare \,$  authorized per VG95328

# **Contact Arrangements**

	No. of contacts	Contact arrangement	Service rating	Insulator W	position X	Υ	Z	Insulator including	weight (g) contacts
		Contact size AWG						pin	socket
K M B B C O D D G F E D	15	14-15 ▲●◇△▼ 20	1	17	110	155	124		
K O PO OC O	19	14-19 ▲●◇△▼ 20	1	30	165	315	-		
B • E • D	5	<b>14-22 ●</b> 12 (1) 20 (4)	1	-	-	-	-		
	4	14A4 ▲ Coax RG188U	1	-	-	-	-		
G A B C E D O	8	<b>16-8 ▲●</b> ◇△ 16	2	54	152	180	331		
Me y e s e b c c e e e e e e e e e e e e e e e e	23	<b>16-23 ▲●</b> ◇ 20 (22) 16 (1)	1	158	270	-	-		
N O O O O O O O O O O O O O O O O O O O	26	<b>16-26 ▲●</b> ◇△ 20	1	60	-	275	338		
G L C	11	18-11 ▲●◇△▼ 16	2	62	119	241	340		
S O O O O O O O O O O O O O O O O O O O	32	18-32 ▲●◇△▼ 20	1	85	138	222	265		

Legende

**▲** KPT  $\, \diamondsuit \,$  KPSE  $\, lacktriangledown$  LN29500  $\, \triangle \,$  authorized per MIL-C-26482  $\, lacktriangledown$  authorized per VG95328

# **Contact Arrangements**

	No. of contacts	Contact arrangement Contact size	Service rating	Insulator W	position X	Υ	Z	Insulator including	weight (g) contacts
		AWG						pin	socket
X • M • A B	16	<b>20-16 ▲●</b> ◇△▼ 16	2	238	318	333	347		
	5	<b>20A6</b> ♦ 12	2	90	180	270	-		
(x° , x° ,	24	<b>20-24 ▲</b> 20	1	70	145	215	290		
(	39	<b>20-39 ▲●</b> ◇△ 20 (37) 16 (2)	1	63	114	252	333		
We a B B C C C C C C C C C C C C C C C C C	41	<b>20-41 ▲●</b> ◇△▼ 20	1	45	126	225	-		
M P P C C W P C C V V V C S D D J U C C C C C C C C C C C C C C C C C C	21	<b>22-21 ▲●</b> ◇△ 16	2	16	135	175	349		
Reference of the second of the	36	<b>22-36 ▲●</b> 20	1	72	144	216	288		
	41	<b>22-41 ▲●</b> ◇△▼ 20 (27) 16 (14)	1 2	39	135	264	-		
T - V A B C C C A A A A A A A A A A A A A A A	55	<b>22-55 ▲●</b> ◇△▼ 20	1	30	142	226	314		

Legende

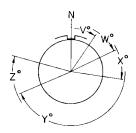
**▲** KPT  $\, \diamondsuit \,$  KPSE  $\, \blacksquare \,$  LN29500  $\, \triangle \,$  authorized per MIL-C-26482  $\, \blacksquare \,$  authorized per VG95328

# **Contact arrangements**

	No. of contacts	Contact arrangement Contact size	Service rating	Insulator   W	position X	Υ	Z	Insulator including	
		AWG						pin	socket
V - FF (NA - 1)	61	<b>24-61 ▲●</b> ◇△ 20	1	90	180	270	324		

# **Alternate Insert Position**

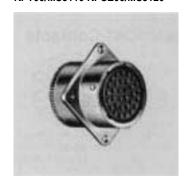
The diagram indicates alternate insert positions. The six positions N, V, W, Y, Z differ in degree of rotation for various sizes and arrangements. For the exact degree of rotation, for the list of contact arrangements and for alternate positions available, refer to the table at the right.

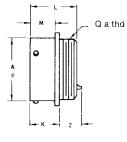


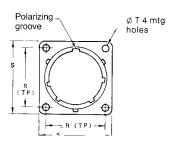
Shell	Nbr. of	Contact		Degree of rota	tion		
size	contacts	arr.	V	W	Χ	Υ	Z
8	2	8-2	-	58	122	-	-
	3	8-3	-	60	210	-	-
	3	8-3A	-	60	-		
	3	8-33	-	90	-	-	-
4	8-4	-	45	-	-		
10	6	10-6	-	90	-		
12	3	12-3	-	-		180	-
	10	12-10	-	60	155	270	295
14	4	14A4	-	-	-	-	-
	5	14-22	-	-	-	-	-
	5	14-22	-	40	92	184	273
	12	14-5	-	43	90	-	-
	15	14-15	-	17	110	155	234
	19	14-19	-	30	165	315	-
16	8	16-8	-	54	52	180	331
	23	16-23	-	158	270	-	-
	26	16-26	-	60	-	275	338
18	11	18-11	-	62	119	241	340
	32	18-32	-	85	138	222	265
20	5	20A6*	-	90	180	270	-
	16	20-16	-	238	318	333	347
	24	20-24	-	70	145	215	290
	39	20-39	-	63	114	252	333
	41	20-41	-	45	126	225	-
22	21	22-21	-	16	135	175	349
	36	22-36	-	72	144	216	288
	41	22-41	-	39	135	264	-
	55	22-55	-	30	142	226	314
24	61	24-61	-	90	180	270	324

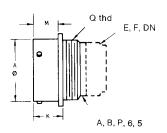
<sup>\*</sup> This contact arrangement features five contacts size 12. Four are standard contacts and one is a first-to-mate contact.

# Wall mounting receptacles KPT00/MS3110 KPSE00/MS3120









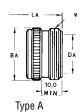
Crimp KPSE00/MS3120

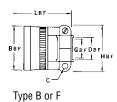
# Solder KPT00/MS3110

# Without termination assembly

	KPT/KPSE								KPT
Shell	ØA	L	Q	K	M	R	S	Т	Z
size*	+0,03 -0,13	max.	Thread Type 2A	$\pm 0,25$	$\pm 0,15$	±0,15	max.	±0,15	max.
<b>◆</b> 8	12,00	21,6	7/16-28UNEF	13,5	11,6	15,1	21,0	3,05	12,3
10	15,00	21,6	9/16-24UNEF	13,5	11,6	18,3	24,2	3,05	12,3
12	19,05	21,6	11/16-24UNEF	13,5	11,6	20,6	26,6	3,05	12,3
14	22,23	21,6	13/16-20UNEF	13,5	11,6	23,0	29,0	3,05	12,3
16	25,40	21,6	15/16-20UNEF	13,5	11,6	24,6	31,3	3,05	12,3
18	28,58	21,6	1- 1/16-18UNEF	13,5	11,6	27,0	33,7	3,05	12,3
20	31,75	26,8	1- 3/16-18UNEF	16,5	14,25	29,4	36,9	3,05	10,8
22	34,93	26,8	1- 5/16-18UNEF	16,5	14,25	31,8	40,1	3,05	10,8
24	38,10	26,8	1- 7/16-18UNEF	17,3	15,1	34,9	43,3	3,75	10,0

# With termination assemblies







Type E





Type P Mod. DN or F 185

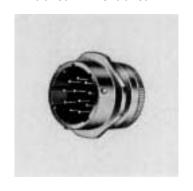
	Тур А				Typ B and	l F				
Shell	B	$D_{_{\!A}}$	L	V	B <sub>BF</sub>	С	$D_{BF}$	$G_{RF}$	$H_{RF}$	L <sub>BE</sub>
size*	max.	min.	max.	Thread Type 2A	max.	Thread	min.	min.	max.	max.
<b>♦</b> 8	15,0	8,5	38,0	1/2-28UNEF	14,0	6-32	6,0	2,9	19,3	45,1
10	18,2	11,8	38,0	5/8-24UNEF	17,2	6-32	7,5	4,5	20,8	45,1
12	21,2	15,0	38,0	3/4-20UNEF	20,4	6-32	10,7	7,7	24,4	45,1
14	24,6	17,9	38,0	7/8-20UNEF	23,6	6-32	13,9	9,3	27,2	45,1
16	27,7	21,1	38,0	1 -20UNEF	26,7	6-32	15,5	12,4	28,7	48,2
18	30,9	24,1	38,0	1-3/16-18UNEF	29,5	8-32	19,6	15,6	35,3	48,2
20	33,9	26,5	43,1	1-3/16-18UNEF	32,7	8-32	19,6	15,6	35,3	50,0
22	37,1	30,4	43,1	1-7/16-18UNEF	35,9	8-32	23,6	18,8	39,9	50,0
24	40,3	32,8	43,1	1-7/16-18UNEF	39,0	8-32	25,2	20,1	43,2	50,0

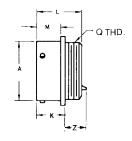
	Type E		Type P			Mod. DN or	Mod. DN or F 185		
Shell	B <sub>r</sub>	L <sub>e</sub>	Bp	$D_{p}$	L	D2	L1	L2	
size*	max.	max.	max.	min.	max.	-0,5	max.	±0,5	
<b>♦</b> 8	14,2	32,5	15,3	8,3	36,9	15,6	35,0	12,2	
10	17,2	32,5	17,6	11,3	36,9	18,4	35,0	12,2	
12	20,4	32,5	21,6	14,2	36,9	23,7	35,0	12,2	
14	23,4	32,5	24,3	17,3	36,9	24,5	35,0	12,2	
16	26,6	32,5	27,6	20,5	36,9	29,8	37,0	14,5	
18	29,6	32,5	31,0	23,1	36,9	32,0	37,0	14,5	
20	32,8	34,5	34,3	26,3	42,2	36,1	42,0	15,8	
22	36,0	34,5	37,1	29,4	42,2	38,5	42,0	15,8	
24	39,2	34,5	40,5	32,6	43,9	41,6	42,0	14,9	

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

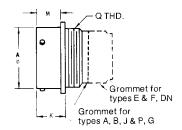
<sup>♦</sup> in series KPSE only contact arrangements 8-3A and 8-33 available

# Cable connecting plugs KPT01/MS3111 KPSE01/MS3121





Polarizing groove



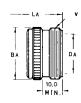
Solder KPT01/MS3111

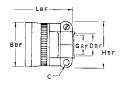
Crimp KPSE01/MS3121

# Without termination assembly

	KPT/KPSE							KPT
Shell	ØA	K	L	M	Q	S	ØΥ	Z
size*	+0,03 -0,13	$\pm 0,25$	max.	±0,15	Thread Type 2A	max.	max.	max.
•8	12,00	13,5	21,5	11,6	7/16-28UNEF	18,5	21,0	12,3
0	15,00	13,5	21,5	11,6	9/16-24UNEF	23,0	24,2	12,3
2	19,05	13,5	21,5	11,6	11/16-24UNEF	29,0	26,6	12,3
4	22,23	13,5	21,5	11,6	13/16-20UNEF	29,5	29,0	12,3
6	25,40	13,5	21,5	11,6	15/16-20UNEF	32,0	31,3	12,3
8	28,58	13,5	21,5	11,6	1- 1/16-18UNEF	35,0	33,7	12,3
.0	31,75	16,5	26,8	14,25	1- 3/16-18UNEF	38,5	36,9	10,8
2	34,93	16,5	26,8	14,25	1- 5/16-18UNEF	42,0	40,1	10,8
4	38,10	17,5	26,8	15,1	1- 7/16-18UNEF	46,0	43,3	10,0

# With termination assemblies











Type A

Type B or F

Type E

Type P

Mod. DN or F 185

	Тур А				Type B and F						
Shell	B	$D_{\scriptscriptstyle{A}}$	$L_{\!\scriptscriptstyle A}$	V	B <sub>BF</sub>	С	$D_{RF}$	$G_{BF}$	$H_{BF}$	$L_{RF}$	
size*	max.	min.	max.	Thread Type 2A	max.	Thread	min.	min.	max.	max.	
<b>♦</b> 8	15,0	8,5	38,0	1/2-28UNEF	14,0	6-32	6,0	2,9	19,3	46,0	
10	18,2	11,8	38,0	5/8-24UNEF	17,2	6-32	7,5	4,5	20,8	46,0	
12	21,2	15,0	38,0	3/4-20UNEF	20,4	6-32	10,7	7,7	24,4	46,0	
14	24,6	17,9	38,0	7/8-20UNEF	23,6	6-32	13,9	9,3	27,2	46,0	
16	27,7	21,1	38,0	1 -20UNEF	26,7	6-32	15,5	12,4	28,7	49,0	
18	30,9	24,1	38,0	1-3/16-18UNEF	29,5	8-32	19,6	15,6	35,3	49,0	
20	33,9	26,5	43,1	1-3/16-18UNEF	32,7	8-32	19,6	15,6	35,3	51,1	
22	37,1	30,4	43,1	1-7/16-18UNEF	35,9	8-32	23,6	18,8	39,9	51,1	
24	40,3	32,8	43,1	1-7/16-18UNEF	39,0	8-32	25,2	20,1	43,2	51,1	

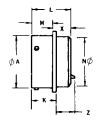
	Type E		Type P	Type P			Mod. DN or F 185		
Shell	B <sub>F</sub>	$L_{\!\scriptscriptstyle E}$	B <sub>p</sub>	$D_{_{P}}$	$L_{p}$	D2	L1	L2	
size*	max.	max.	max.	min.	max.	-0,5	max.	±0,5	
<b>♦</b> 8	14,2	32,5	15,3	8,3	36,9	15,6	35,0	12,2	
10	17,2	32,5	17,6	11,3	36,9	18,4	35,0	12,2	
12	20,4	32,5	21,6	14,2	36,9	23,7	35,0	12,2	
14	23,4	32,5	24,3	17,3	36,9	24,5	35,0	12,2	
16	26,6	32,5	27,6	20,5	36,9	29,8	37,0	14,5	
18	29,6	32,5	31,0	23,1	36,9	32,0	37,0	14,5	
20	32,8	34,5	34,3	26,3	42,2	36,1	42,0	15,8	
22	36,0	34,5	37,1	29,4	42,2	38,5	42,0	15,8	
24	39,2	34,5	40,5	32,6	43,9	41,6	42,0	14,9	

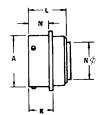
<sup>\*</sup> See page 5, 7 and 8 for ordering number information

<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

# Box mounting receptacles KPT02/MS3112 KPSE02/MS3122







Solder KPT02/MS3112

Crimp KPSE02/MS3122

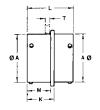
### Without termination assemblies

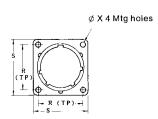
	KPT/KPSE								KPT
Shell	ØA	L	N	K	M	R	S	Т	Z
size*	+0,03 -0,13	max.	max.	±0,25	±0,15	±0,15	max.	±0,15	max.
<b>•</b> 8	12,00	21,1	11,1	13,5	11,6	15,1	21,0	3,05	12,3
10	15,00	21,1	14,3	13,5	11,6	18,3	24,2	3,05	12,3
12	19,05	21,1	17,5	13,5	11,6	20,6	26,6	3,05	12,3
14	22,23	21,1	20,6	13,5	11,6	23,0	29,0	3,05	12,3
16	25,40	21,1	23,8	13,5	11,6	24,6	31,3	3,05	12,3
18	28,58	21,1	27,0	13,5	11,6	27,0	33,7	3,05	12,3
20	31,75	22,7	30,2	16,5	14,25	29,4	36,9	3,05	10,8
22	34,93	22,7	33,4	16,5	14,25	31,8	40,1	3,05	10,8
24	38,10	22,7	36,5	17,3	15,1	34,9	43,3	3,75	10,0

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

# Thru-bulkhead receptacles KPTB/MS3119







KPTB/MS3119

# Receptacle assembly

Shell	Ø A	K	L	M	Т	R	S	Χ
size*	+0,03 -0,13	±0,5	max.	$\pm 0,25$	max.	±0,15	max.	±0,15
<b>♦</b> 8	12,00	16,1	28,6	14,5	6,0	15,1	21,0	3,05
10	15,00	16,1	28,6	14,5	6,0	18,3	24,2	3,05
12	19,05	16,1	28,6	14,5	6,0	20,6	26,6	3,05
14	22,23	16,1	28,6	14,5	6,0	23,0	29,0	3,05
16	25,40	16,1	28,6	14,5	6,0	24,6	31,3	3,05
18	28,58	16,1	28,6	14,5	6,0	27,0	33,7	3,05
20	31,75	20,1	31,9	17,7	9,2	29,4	36,9	3,05
22	34,93	20,1	31,9	17,7	9,2	31,8	40,1	3,05
24	38,10	20,1	31,9	17,7	8.0	34,9	43,3	3,75

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

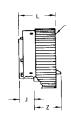
# **ITT Cannon**

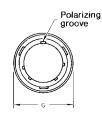
<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

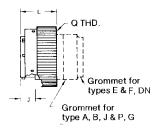
<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

# Straight plugs KPT06/MS3116 KPSE06/MS3126









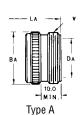
Solder KPT06/MS3116

Crimp KPSE06/MS3126

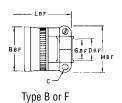
### Without termination assemblies

	KPT/KPSE			KPT	
Shell	G	J L	Q Thread	Z	
size*	max.	±0,15	max.	Thread Type 2A	max.
<b>♦</b> 8	19,8	9,1	21,4	7/16-28UNEF	16,3
10	23,6	9,1	21,4	9/16-24UNEF	16,3
12	26,5	9,1	21,4	11/16-24UNEF	16,3
14	30,1	9,1	21,4	13/16-20UNEF	16,3
16	33,2	9,1	21,4	15/16-20UNEF	16,3
18	35,4	9,1	21,4	1- 1/16-18UNEF	16,3
20	39,0	10,7	25,1	1- 3/16-18UNEF	15,0
22	42,1	10,7	25,1	1- 5/16-18UNEF	15,0
24	45,2	10,7	25,1	1- 7/16-18UNEF	15,0

# With termination assemblies



45,0



39,0

8-32



Type E

25,2



Type P

20,1

43,2



Mod. DN or F 185

49,0

Typ B and F Type A B<sub>BF</sub> Shell  $B_{\Delta}$  $D_A$  $\mathsf{L}_{_{\!A}}$ С  $\mathsf{D}_{\mathsf{BF}}$  $\mathsf{G}_{\mathsf{BF}}$  $L_{BF}$  $H_{BF}$ Thread Type 2A size\* max. min. max. max. Thread min. max max. 15,0 8,5 42,0 1/2-28UNEF 14,0 6-32 2,9 •8 6,0 19,3 46,0 10 18,2 11,8 42,0 5/8-24UNEF 17,2 6-32 7,5 4,5 20,8 46,0 12 21,2 15,0 42,0 3/4-20UNEF 20,4 6-32 10,7 7,7 24,4 46,0 14 24,6 17,9 42,0 7/8-20UNEF 23,6 6-32 13,9 9,3 27,2 46,0 16 27,7 21,1 42,0 1 -20UNEF 26,7 6-32 15,5 12,4 28,7 49,0 18 30,9 24,1 42,0 1-3/16-18UNEF 29,5 8-32 19,6 15,6 35,3 49,0 19,6 20 33.9 45,0 1-3/16-18UNEF 32.7 15.6 35.3 49.0 26.5 8-32 22 37,1 30,4 45,0 1-7/16-18UNEF 35,9 8-32 23,6 18,8 39,9 49,0

	Type E		Type P			Mod. DN or	Mod. DN or F 185		
Shell	B <sub>F</sub>	L <sub>F</sub>	B <sub>P</sub>	$D_{_{P}}$	$L_{p}$	D2	L1	L2	
size*	max.	max.	max.	min.	max.	-0,5	max.	±0,5	
<b>♦</b> 8	14,2	32,5	15,3	8,3	36,9	15,6	35,0	12,2	
10	17,2	32,5	17,6	11,3	36,9	18,4	35,0	12,2	
12	20,4	32,5	21,6	14,2	36,9	23,7	35,0	12,2	
14	23,4	32,5	24,3	17,3	36,9	24,5	35,0	12,2	
16	26,6	32,5	27,6	20,5	36,9	29,8	37,0	14,5	
18	29,6	32,5	31,0	23,1	36,9	32,0	37,0	14,5	
20	32,8	34,5	34,3	26,3	42,2	36,1	42,0	15,8	
22	36,0	34,5	37,1	29,4	42,2	38,5	42,0	15,8	
24	39,2	34,5	40,5	32,6	43,9	41,6	42,0	14,9	

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

40,3

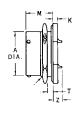
32,8

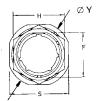
1-7/16-18UNEF

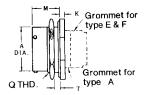
<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

# Jam nut receptacle KPT07/MS3114 KPSE07/MS3124









**Solder** KPT07/MS3114 Type A

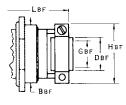
Crimp KPSE07/MS3124

### Without termination assemblies

	KPT/KPSE									KPT	
Shell	Α	F	Н	K	M	R	S	T Panel	thickness	ØΥ	Z
size*	+0,03 -0,13	±0,15	$\pm 0,15$	$\pm 0,25$	$\pm 0,15$	Thread Type 2A	±0,5	min.	max.	max.	max.
<b>♦</b> 8	12,0	13,3	19,0	3,2	17,7	9/16-24UNEF	24,0	1,6	3,5	28,0	7,9
10	15,0	16,5	22,2	3,2	17,7	11/16-24UNEF	27,0	1,6	3,5	31,0	7,9
12	19,05	20,6	27,0	3,2	17,7	7/8-20UNEF	32,0	1,6	3,5	36,0	7,9
14	22,23	23,8	30,2	3,2	17,7	1 -20UNEF	35,0	1,6	3,5	39,0	7,9
16	25,40	26,9	33,3	3,2	17,7	1- 1/8-18UNEF	38,5	1,6	3,5	42,0	7,9
18	28,58	30,1	36,5	3,2	17,7	1- 1/4-18UNEF	41,5	1,6	3,5	45,0	7,9
20	31,75	33,3	39,7	4,0	22,5	1- 3/8-18UNEF	46,0	1,6	6,5	50,0	4,7
22	34,93	36,5	42,9	4,0	22,5	1- 1/2-18UNEF	49,5	1,6	6,5	55,0	4,7
24	38,10	39,6	46,0	4,0	23,3	1- 5/8-18UNEF	52,5	1,6	6,5	57,0	3,8

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

# With termination assemblies



Type B or F



Type E



Modification DN or F 185

	Type B an	d F			Type E		Type DN	Type DN		
Shell	$B_{RF}$	$D_{RF}$	$G_{BF}$	$H_{RF}$	$L_{RF}$	B <sub>r</sub>	L <sub>c</sub>	L,	L,	$D_{2}$
size*	max.	min.	min.	max.	max.	max.	max.	max.	±0,5	max.
<b>♦</b> 8	18,2	6,0	2,9	19,3	44,9	18,2	33,5	43,0	12,2	15,6
10	21,5	7,5	4,5	20,8	44,9	21,5	33,5	43,0	12,2	18,4
12	24,6	10,7	7,7	24,2	44,9	24,6	33,5	43,0	12,2	23,7
14	27,8	13,9	9,3	27,2	44,9	27,8	33,5	43,0	12,2	24,7
16	31,0	15,5	12,4	28,7	48,4	31,0	33,5	45,5	14,5	29,8
18	34,1	19,6	15,6	35,3	48,4	34,1	33,5	45,5	14,5	32,0
20	38,1	19,6	15,6	35,3	50,3	38,1	39,0	52,6	15,8	36,1
22	41,3	23,6	18,8	39,8	50,3	41,3	39,0	52,6	15,8	28,5
24	44,5	25,2	20,1	43,2	50,3	44,5	39,0	51,6	14,9	41,6

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

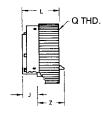
<sup>♦</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

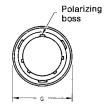
<sup>♦</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

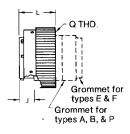
KPT/KPSE Miniature circular connectors

# Right angle plug, $90^{\circ}$ KPT08 KPSE08









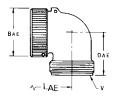
Solder KPT08 Crimp KPSE08

# Without termination assemblies

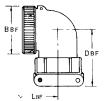
	KPT/KPSE				KPT
Shell	G	J	L	Q	Z
size*	max.	±0,15	max.	Thread Type 2A	max.
•8	19,8	9,1	21,4	7/16-28UNEF	16,3
10	23,6	9,1	21,4	9/16-24UNEF	16,3
12	26,5	9,1	21,4	11/16-24UNEF	16,3
14	30,1	9,1	21,4	13/16-20UNEF	16,3
16	33,2	9,1	21,4	15/16-20UNEF	16,3
18	35,4	9,1	21,4	1- 1/16-18UNEF	16,3
20	39,0	10,7	25,1	1- 3/16-18UNEF	15,0
22	42,1	10,7	25,1	1- 5/16-18UNEF	15,0
24	45,2	10,7	25,1	1- 7/16-18UNEF	15,0

<sup>\*</sup> See page 5, 7 and 8 for ordering number information •in series KPSE only contact arrangements 8-3A and 8-33 available

# With termination assemblies



Typ A or E



Type B or F

	Typ A and E				Type B and F		
Shell	B <sub>AE</sub>	L <sub>AF</sub>	$D_{AE}$	V	$B_{BF}$	$D_{RF}$	$L_{RF}$
size*	max.	max.	max.	Thread Type 2A	max.	max.	max.
•8	15,6	36,1	20,9	1/2-28UNEF	15,6	31,4	36,1
10	18,9	38,3	21,7	5/8-24UNEF	18,9	32,2	38,3
12	21,2	40,9	23,3	3/4-20UNEF	21,2	35,4	40,9
14	24,8	41,6	24,9	7/8-20UNEF	24,8	38,6	41,6
6	27,7	42,5	26,5	1 -20UNEF	27,7	40,2	42,5
8	31,4	44,7	28,1	1-3/16-18UNEF	31,4	41,8	44,7
20	34,7	48,3	29,6	1-3/16-18UNEF	34,7	43,4	48,3
2	36,9	52,1	31,7	1-7/16-18UNEF	36,9	47,9	52,1
24	41,1	52,1	33,6	1-7/16-18UNEF	41,1	49,9	52,1

<sup>\*</sup> See page 5, 7 and 8 for ordering number information

<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

# Special versions with grounding continuity

These connectors are designed to ensure electrical continuity

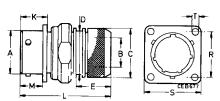
- at the cable shielding level (to protect it against radio frequency intererences)
- at the grounding level (if it is connected to the shielding).

The plugs are manufactured with grounding fingers soldered to the front face of the shell. They make contact with the inner side of the receptacle shell.

Plug and receptacle feature a special endbell which supports the cable shielding. The connectors are in accordance with the VG 95328 specification.

# Receptacle with grounding continuity (for shielded cable) KPT/KPSE 0E ... DZ





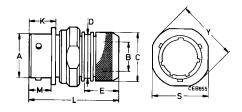
Shell	А	В	С	D	Е	K	L	М	R	S	ØT
size*	+0,03 -0,13	min.	+0,5	max.	1,00	±0,25	max.	±0,15	±0,15	max.	$\pm 0,15$
<b>♦</b> 8	12,00	6,6	16,0	13,3	15,0	13,5	52,0	11,6	15,1	21,0	3,05
10	15,00	9,2	18,0	16,1	15,0	13,5	52,0	11,6	18,3	24,2	3,05
12	19,05	12,2	22,0	20,0	17,0	13,5	52,0	11,6	20,6	26,6	3,05
14	22,23	15,2	25,0	22,2	18,0	13,5	53,0	11,6	23,0	29,0	3,05
16	25,40	18,3	28,0	26,2	18,0	13,5	53,0	11,6	24,6	31,3	3,05
18	28,58	20,0	32,0	28,5	18,0	13,5	53,0	11,6	27,0	33,7	3,05
20	31,75	23,0	34,0	32,5	18,0	16,5	58,0	14,25	29,4	36,9	3,05
22	34,93	26,0	38,0	34,8	18,0	16,5	58,0	14,25	31,7	40,1	3,05
24	38,10	28,8	41,0	37,9	18,0	17,3	58,0	15,1	34,9	43,3	3,75

<sup>\*</sup> See pages 5 and 8 for ordering number information

<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

# Cable connecting plug with grounding continuity (for shielding cable) KPT/KPSE 1E ... DZ



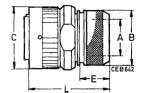


Shell	Α	В	С	D	F	K	1	M	S	ØΥ
size*	+0.03 -0.13	min.	+0.50	max.	±1,0	±0,25	max.	±0,15	max.	max.
<b>♦</b> 8	12,00	6,6	16,0	13,3	15,0	13,5	52,0	11,6	18,5	21,0
10	15,00	9,2	18,0	16,1	15,0	13,5	52,0	11,6	23,0	24,2
12	19,05	12,2	22,0	20,0	17,0	13,5	52,0	11,6	29,0	26,6
14	22,23	15,2	25,0	22,2	18,0	13,5	53,0	11,6	29,5	29,0
16	25,40	18,3	28,0	26,2	18,0	13,5	53,0	11,6	32,0	31,3
18	28,58	20,0	32,0	28,5	18,0	13,5	53,0	11,6	35,0	33,7
20	31,75	23,0	34,0	32,5	18,0	16,5	58,0	14,25	38,5	36,9
22	34,93	26,0	38,0	34,8	18,0	16,5	58,0	14,25	42,0	40,1
24	38,10	28,8	41,0	37,9	18,0	17,5	58,0	15,10	46,0	43,3

<sup>\*</sup> See pages 5 and 8 for ordering number information

# Straight plug with grounding continuity KPT/KPSE6E.DZ







Shell	А	В	С	D	Е	L	S
size*	min.	+0,50	max.	max.	±1,0	max.	±0,2
<b>♦</b> 8	6,6	16,0	19,1	20,0	15,0	48,0	17,0
10	9,2	18,0	22,0	15,0	15,0	48,0	19,0
12	12,2	22,0	26,2	26,0	17,0	48,0	23,0
14	15,2	25,0	29,4	30,0	18,0	49,0	26,0
16	18,3	28,0	32,8	33,0	18,0	49,0	29,0
18	20,0	32,0	35,4	36,0	18,0	49,0	33,0
20	23,0	34,0	39,0	40,0	18,0	53,0	35,0
22	26,0	38,0	42,1	43,0	18,0	53,0	39,0
24	28,8	41,0	45,2	46,0	18,0	53,0	42,0

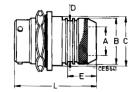
<sup>\*</sup> See pages 5 and 8 for ordering number information

<sup>♦</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

<sup>◆</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

# Jam nut receptacle with grounding continuity (for shielded cable) KPT/KPSE 7E ... DZ





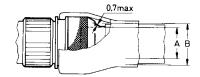


Shell-	Ø A	ØВ	ØС	D	E	L	S	Т
size	min.	+0,5	max.	max.	1,0	max.	$\pm 0,25$	±0,25
<b>♦</b> 8	6,6	16,0	18,2	13,3	15,0	47,0	23,0	19,0
10	9,2	18,0	21,4	16,1	15,0	47,0	27,0	22,2
12	12,2	22,0	24,6	20,0	17,0	49,0	31,7	27,0
14	15,2	25,0	27,8	22,2	18,0	50,0	34,9	30,2
16	18,3	28,0	30,9	26,2	18,0	50,0	38,1	33,3
18	20,0	32,0	34,1	28,5	18,0	50,0	41,3	36,5
20	23,0	34,0	38,1	32,5	18,0	55,0	46,0	39,7
22	26,0	38,0	41,3	34,8	18,0	55,0	49,2	42,9
24	28,8	41,0	44,4	37,9	18,0	55,0	52,3	46,0

 $<sup>^{\</sup>star}$  See pages 5 and 8 for ordering number information

# Assembly of a connector with a ground continuity endbell $\ensuremath{\mathsf{KPT/KPSE}}$ ... $\ensuremath{\mathsf{DZ}}$





Shell	±Α	±Β	
size*	max.	max.	
<b>◆</b> 8	6,6	8,0	
10	9,2	10,0	
12	12,2	14,0	
14	152	17,0	
16	18,3	20,0	
18	20,0	24,0	
20	23,0	27,0	
22	26,0	30,0	
24	28,8	33,0	

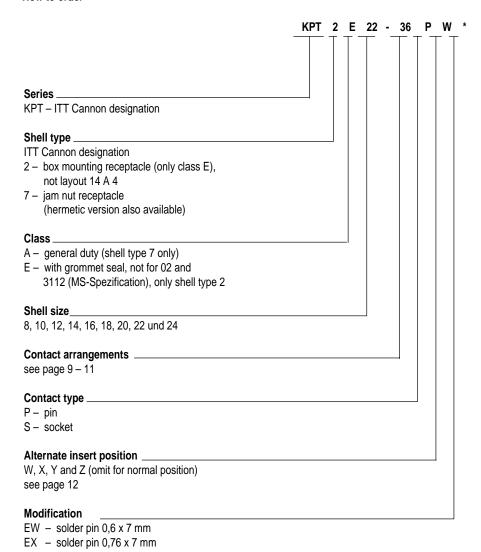
<sup>\*</sup> See pages 5 and 8 for ordering number information

 $<sup>\</sup>bullet \mbox{in series KPSE}$  only contact arrangements 8-3A and 8-33 available

<sup>♦</sup>in series KPSE only contact arrangements 8-3A and 8-33 available

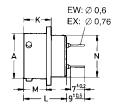
# Receptacles with straight solder pins

### How to order



# Box mounting receptacle KPT 2\* P/S\*\*.\*\*\*





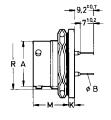


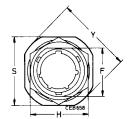
Shell	A	K	L	М	N	R	S	ØT
size	+0,03 -0,13	$\pm 0,25$	max.	±0,15	max.	±0,15	max.	±0,15
8	12,00	13,50	21,1	11,60	11,10	15,10	21,00	3,05
10	15,00	13,50	21,1	11,60	14,30	18,30	24,20	3,05
12	19,05	13,50	21,1	11,60	17,50	20,60	26,60	3,05
14	22,23	13,50	21,1	11,60	20,60	23,00	29,00	3,05
16	25,40	13,50	21,1	11,60	23,80	24,60	31,30	3,05
18	28,58	13,50	21,1	11,60	27,00	27,00	33,70	3,05
20	31,75	16,50	22,7	14,25	30,20	29,40	36,90	3,05
22	34,93	16,50	22,7	14,25	33,40	31,70	40,10	3,05
24	38,10	17,30	22,7	15,10	36,50	34,90	43,30	3,75

Order ref. see page 22

Jam nut receptacle KPT 7\* P/S\*\* \*\*\*\*



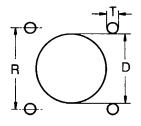




Shell	A	F	Н	K	M	R	S	Panel thickness	Υ
size*	+0,03 -0,13	$\pm 0,15$	$\pm 0,15$	$\pm 0,25$	$\pm 0,15$	Thread Type 2 A	$\pm 0,5$	min.	max.
8	12,00	13,3	19,0	3,2	17,7	9/16-24UNEF	24,0	1,6	28,0
10	15,00	16,5	22,2	3,2	17,7	11/16-24UNEF	27,0	1,6	31,0
12	19,05	20,6	27,0	3,2	17,7	7/8-20UNEF	32,0	1,6	36,0
14	22,23	23,8	30,2	3,2	17,7	1- 20UNEF	35,0	1,6	39,0
16	25,40	26,9	33,3	3,2	17,7	1- 1/8-18UNEF	38,5	1,6	42,0
18	28,58	30,1	36,5	3,2	17,7	1- 1/4-18UNEF	41,5	1,6	45,0
20	31,75	33,3	39,7	4,0	22,5	1- 3/8-18UNEF	46,0	1,6	50,0
22	34,93	36,5	42,9	4,0	22,5	1- 1/2-18UNEF	49,5	1,6	55,0
24	38.10	39.6	46.0	4.0	23.3	1- 5/8-18UNEF	52.5	1.6	57.0

Order ref. see page 22

# **Panel cutouts**

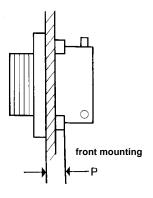


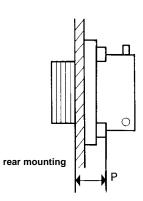
# Box and wall mounting receptacle

Shell size	for rear mounting	for front mounting	
	D +0,25 / -0	D +0,25 / -0	R ±0,15
8	14	12,7	15,1
10	17	16	18,3
12	22	19	20,6
14	25	22,2	23,0
16	28	25,5	24,6
18	31	28,5	27,0
20	34,5	31,7	29,4
22	37,5	35	31,8
24	41	38	34,9

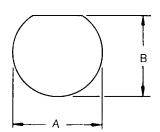
# Mounting hole diameter

Shell size	KPT/KPSE T +0,3	P - Panel thickness screw head height included	
8	3,1	2,2	
10	3,1	2,2	
12	3,1	2,2	
14	3,1	2,2	
16	3,1	2,2	
18	3,1	2,2	
20	3,1	5,4	
22	3,1	5,4	
24	3,6	5,4	





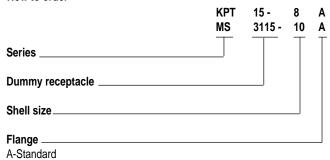
# Jam nut receptacle

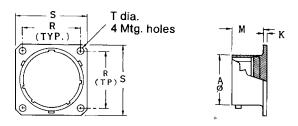


Shell	KPT/KPSE		
size	A +0,25	B +0	
	-0	-0,12	
8	14,5	13,6	
10	17,7	16,8	
12	22,7	20,9	
14	25,7	24,1	
16	28,8	27,2	
18	32	30,4	
20	35,1	33,6	
22	38,4	36,8	
24	41,5	40	

# **Dummy receptacles**

How to order





Shell size	Α	K	М	R	S	ØT
	+0,03 -0,13	$\pm 0,4$	±0,15	±0,15	max.	±0,15
* 8 A	12,00	1,6	12,1	15,1	21,0	3,05
* 10 A	15,00	1,6	12,1	18,3	24,2	3,05
* 12 A	19,05	1,6	12,1	20,6	26,6	3,05
* 14 A	22,23	1,6	12,1	23,0	29,0	3,05
* 16 A	25,40	1,6	12,1	24,6	31,3	3,05
* 18 A	28,58	1,6	12,1	27,0	33,7	3,05
* 20 A	31,75	2,4	14,5	29,4	36,9	3,05
* 22 A	34,93	2,4	14,5	31,8	40,1	3,05
* 24 A	38,10	2,4	15,4	34,9	43,3	3,75

<sup>\*</sup> Add KPT 15 or MS 3115 prefixes

# **Protective caps**

### Material and finishes

Protective cap Aluminum alloy
Sash chain Stainless steel
Cord Polyamide
Ring Stainless steel
Clip Aluminum alloy
Gasket Fluor Silicone

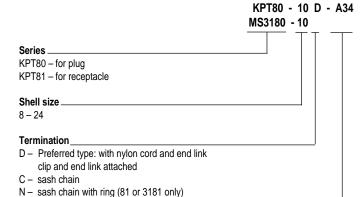
Endlink / rivet Stainless steel, passivated Bayonet pin Stainless steel, passivated

Finishes

A34 Nickel

A66 Olive drab chromate over cadmium

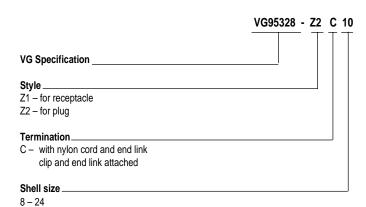
### How to order



### Modification

A34 - nickel plated

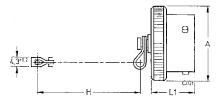
without code = A66 - oliv drab chromate over cadmium



Crimp tool for clips upon request

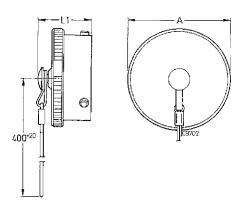
# 80 / 3180 - for plugs

cap with sash chain C or N



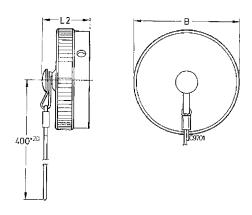
# 80 / 3180 - for plugs

cap with nylon cord D / preferred type



# 81 / 3181 - for receptacles

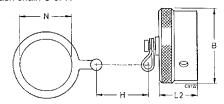
cap with nylon cord D / preferred type



Α	L1	В	L2	Н	N
size	max	max.	max.	max.	
18,26	19,84	18,0	21,44	76	14,7
21,44	19,84	20,3	21,44	76	17,9
25,40	19,84	25,1	21,44	89	22,6
28,58	19,84	28,2	21,44	89	25,8
31,75	19,84	31.5	21,44	89	29,0
34,92	19,84	34,5	21,44	89	32,2
38,10	21,44	37,8	21,44	101	35,3
41,28	21,44	40,9	21,44	101	38,5
44,45	22,22	44,2	22,22	101	41,7
	size 18,26 21,44 25,40 28,58 31,75 34,92 38,10 41,28	size         max           18,26         19,84           21,44         19,84           25,40         19,84           28,58         19,84           31,75         19,84           34,92         19,84           38,10         21,44           41,28         21,44	size         max         max.           18,26         19,84         18,0           21,44         19,84         20,3           25,40         19,84         25,1           28,58         19,84         28,2           31,75         19,84         31.5           34,92         19,84         34,5           38,10         21,44         37,8           41,28         21,44         40,9	size         max         max.         max.           18,26         19,84         18,0         21,44           21,44         19,84         20,3         21,44           25,40         19,84         25,1         21,44           28,58         19,84         28,2         21,44           31,75         19,84         31.5         21,44           34,92         19,84         34,5         21,44           38,10         21,44         37,8         21,44           41,28         21,44         40,9         21,44	size         max         max.         max.         max.           18,26         19,84         18,0         21,44         76           21,44         19,84         20,3         21,44         76           25,40         19,84         25,1         21,44         89           28,58         19,84         28,2         21,44         89           31,75         19,84         31.5         21,44         89           34,92         19,84         34,5         21,44         89           38,10         21,44         37,8         21,44         101           41,28         21,44         40,9         21,44         101

# 81 / 3181 - for receptacles

cap with sash chain C or N



W1,2LN29500

# **Tools and Accessories**

# **Crimp tools**



Series	Hand crimp tool	Locator for contact sizes 20, 16 and 12	Test gage for Hand crimp tool
KPSE	M22520/1-01	M22520/1-02	M22520/3-1

### Insertion/Extraction tool



KPSE				
Contact size	Insertion tool		Extraction tool	
	MS	ITT Cannon	MS/ITT Cannon	LN
20 without insulation support	-	CIT-20-18	MS24256R20	W0,6LN29500
20 with insulation support	MS24256A20	CIT-20-5A	MS24256R20	W0.6LN29500

 20 with insulation support
 MiS24256A20
 CIT-20-5A
 MiS24256R20

 16
 MS24256A16
 CIT-16-1
 MS24256R16

 12
 MS24256A12
 MS24256R12



### KPT14A4

Contact type	Insertion tool	Extraction tool
Coaxial	-	CET-C 6 B

# Contacts



### **KPSE/VG 95328**

Contact type	Contact order ref.	er ref.	
,,	KPSE version	VG 95328 version	
Socket with insulation support	031-8704-203	031-8704-203	
Pin with insulation support	430-8560-006	430-8560-006	
Socket	031-8704-000	031-8704-000	
Pin	430-8560-004	430-8560-004	
Socket	031-8704-012		
Pin	430-8560-016		
Grounding pin	430-8560-020		
	Socket with insulation support Pin with insulation support Socket Pin Socket Pin	KPSE version	

# KPT14A4

Coaxial	Pln	DM 53740-5001
	Socket	DM 53742-5001

# Wire hole fillers/Grommet sealing plugs



# **KPSE**

Contact size	Colour code	MS	LN	ITT Cannon
20	Red	MS3187A20	BL0,6LN 29500	225-1012-000
16	Blue	MS3187-16A	BL1,2LN 29500	225-1011-000
12	Yellow	MS3187-12		225-0072-000
Koax 14A4	Yellow			225-0018-000

# Flange gaskets



Shell	Alu-Flex	Chloroprene
size	conductive	non conductive
8	075-8543-000	075-8543-010
10	075-8543-001	075-8543-011
12	075-8543-002	075-8543-012
14	075-8543-003	075-8543-013
16	075-8543-004	075-8543-014

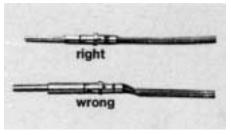
Shell	Alu-Flex	Chloroprene
size	conductive	non conductive
18	075-8543-005	075-8543-015
20	075-8543-006	075-8543-016
22	075-8543-007	075-8543-017
24	075-8543-008	075-8543-018

# **ITT Cannon**

**Crimping contacts** 

not to cut or nick strands.

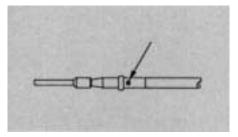
Contact size	Cable size mm² (AWG)	Strip insulation
20	0,93-0,21 (20-24)	5,0 mm
16	1,91-0,60 (16-20)	6,5 mm
12	3,18-1,91 (12-14)	6,5 mm
14A4 Coax	RG179B/u	



2. Insert stripped wire into contact crimp pot. Wire must be visible thru inspection hole.

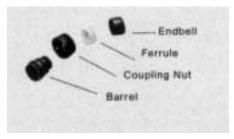


3. Using correct crimp tool and locator, cycle the tool once to be sure the indentors are open. Insert contact and wire into locator. Squeeze tool handles firmly and completely to insure a proper crimp. The tool will not release unless the crimp indentors in the tool head have been fully actuated.



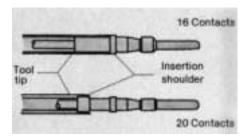
1. Strip wires according to the table above taking care

4. Release crimped contact and wire from tool. Be certain the wire is visible thru inspection hole in contact.



Contact insertion

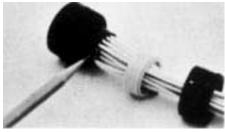
5. Remove hardware from plug and receptacle. Slide hardware over wire bundle in proper order for reassembly.



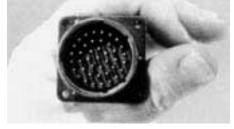
6. Use the proper contact insertion tool, and slide the tool over the terminal end of the contact. The size 16 contact lies in the tool and the tool tip butts against the contact shoulder. The rear, or insulation support, of the size 20 contact butts against an internal shoulder in the tool tip.



7. Beginning from center cavity and working outwards, insert wired contacts into rear of connector by hand until the front of the contact shoulder is no more than 1/8" from the grommet. Holding the connector securely, position tool behind contact. Push tool straight into contact cavity until contact snaps into position. A light pull on wire will assure that contact is locked securely. Repeat for remaining contacts.

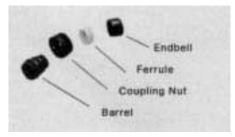


8. Use wire hole fillers or grommet sealing plugs to fill any empty cavities and assemble hardware to rear of plug or receptacle.



Completion

Check face of plug or receptacle for proper contact installation.



### **Contact extraction**

10. Slide hardware back over wire bundle. Using proper extraction tool or extraction end of proper insertion/extraction tool, proceed as follows:



11. Use the proper extraction tool. There are two lines on the clip sleeve which are vital to the contact removal process. The first index line is used for removing

pin contacts while the second index line is for removing socket contacts. Carefully place the tool tip over the contact to be extracted until the tool tip touches the insulator face. Carefully rotate the tool until the index line is slightly below the insulator face. Keep an even pressure against tool body; push plunger forward with thumb and index finger; and push the contact out through the clip. Carefully remove extraction tool from connector. Pull the wire by hand to complete the removal of the contact.

Please ask for our detailed Assembly Instruction



# Cross Reference List KPT/MIL-C-26482, NFL 54125, VG 95328

Part No. KPT	Part No.	Part No.	Part No.	Part No.
ITT Cannon	MIL-26482	NFL 54125	VG 95328	LN 29500
KPT00B*-***		25100A*-***50		
KPT00B*-***		25100AC*-***50		
KPT00E*-***	MS3110E*-***	25100E*-***50		
KPT00F*-***	MS3110E*-***	25100EC*-***50		
KPT00G*-***		25100J*-***50		
KPT00J*-***	MS3110J*-***			
KPT00P*-***	MS3110P*-***	25100P*-***50		
KPT0E*-***DN				
KPT0E*-***DZ				
KPT01A*-***		25101A*-***50		
KPT01B*-***		25101AC*-***50		
KPT01E*-***	MS3111E*-***	25101E*-***50		
KPT01F*-***	MS3111F*-***	25101EC*-***50		
KPT01G*-***		25101J*-***50		
KPT01J*-***	MS3111J*-***			
KPT01P*-***	MS3111P*-***	25101P*-***50		
KPT1E*-***DN				
KPT06A*-***		25106A*-***50		
KPT06B*-***		25106AC*-***50		
KPT06E*-***	MS3116E*-***	25106E*-***50		
KPT06F*-***	MS3116F*-***	25106EC*-***50		
KPT06G*-***		25106J*-***50		
KPT1E*-***DZ				
		25102E*-***50Y11*		
		25107A*-***50Y11*		
KPT06J*-***	MS3116J*-***			
KPT06P*-***	MS3116P*-***	25106P*-***50		
KPT6A*-***88				
KPT6E*-***DN				
KPT6E*-***DZ				
KPT02E*-***	MS3112E*-***	25102E*-***50	H*-***VG 95328	<u> </u>
KPT07A*-***		25107A*-***50		
KPT07E*-***	MS3114E*-***	25107E*-***50		
KPT07F*-***	MS3114F*-***	25107EC*-***50		
KPT08E*-***				
KPT08F*-***		25108EC*-***50		
KPT08P*-***		25108P*-***50		
KPT7E*-***DN				
KPTB*-***	MS3119E*-***	251B*-***		

Please note: Connectors acc. to VG 95328 and connectors of ITT Cannon series KPSE use different contacts – see page 27

# **Cross Reference List Protective Caps**

Part No.	Part No.	Part No.	Part No.	Part No.
ITT Cannon	MIL-C-26482	NFL 54125	VG95328	LN 29500
KPT80	MS 3180			
KPT80C	MS 3180C		Z 2VG 95328	
KPT81	MS 3181			
KPT81C	MS 3181C		Z 1VG 95328	
KPT81N	MS 3181N			

# Cross Reference List KPSE/MIL-C-26482, NFL 54125, VG95328

Part No. KPSE	Part No.	Part No.	Part No.	
ITT Cannon	MIL-C-26482	NFL 54-125	VG 95328	
KPSE00A*-***		25100RA*-***50		
KPSE00B*-***				
KPSE00E*-***	MS3120E*-***	25100R*-***50	A*-***VG 95328	
KPSE00F*-***	MS3120F*-***	25100RC*-***50	B*-***VG 95328	
KPSE0E*-***DZ	00.120.	20.00.10	R*-***VG 95328	
KPSE00J*-***				
KPSE00P*-***	MS3120P*-***	25100RP*-***50		
KPSE0E*-***DN	111001201	20100111 00		
KPSE00G*-***		25106RJ*-***50		
KSPE01A*-***	25101RA*-***50	2010010 00		
KPSE01B*-***	20101104 - 30			
KPSE01E*-***	MS3121E*-***	25101R*-***50		
KPSE01F*-***	MS3121E - MS3121F*-***	25101R - 30 25101RC*-***50		
KPSE01G*-***	W031211 -	25101RG - 30 25101RJ*-***50		
KPSE01J*-***		23101KJ - 30		
KPSE017 - KPSE01P*-***	MS3121P*-***	25101RP*-***50		
KPSE*-***DN	W33121F -	25101KF - 50		
KPSE - DN KPSE02E*-***	MS3122E*-***	25102R*-***50	C*-***VG 95328	
	W33122E -		C - VG 95326	
KPSE06A*-*** KPSE06B*-***		25106RA*-***50		
	MC240CF* ***	05400D* ***		
KPSE06E*-***	MS3126E*-***	25106R*-***	I/+ +++\/O 05000	
KPSE06F*-***	MS3126F*-***	25106RC*-***50	K*-***VG 95328	
KPSE06G*-***		25106RJ*-***50		
KPSE06J*-***	M00400D* ***	05400DDt ttt50		
KPSE06P*-***	MS3126P*-***	25106RP*-***50		
KPSE6A*-***88				
KPSE6E*-***88			N*-***VG 95328	
KPSE6E*-***DN			J*-***VG 9532	
KPSE6E*-***DZ			M*-***VG 95328	
KPSE07A*-***		25107RA*-***50		
KPSE1E*-***DZ				
KPSE7E*-***DN			S*-***VG 95328	
KPSE07E*-***	MS3124E*-***	25107R*-***50	D*-***VG 95328	
KPSE07F*-***	MS3124F*-***	25107RC*-***50	E*-***VG 95328	
KPSE08E*-***				
KPSE08F*-***		25108RC*-***50		
KPSE08P*-***		25108RP*-***50		
KPSE7E*-***DZ			T*-***VG 95328	

Please note: Connectors acc. to VG 95328 and connectors of ITT Cannon series KPSE use different contacts – see page 27

# **Product Safety Information**

THIS NOTE SHOULD BE READ IN CON-JUNCTION WITH THE PRODUCT DATA SHEET/CATALOGUE. FAILURE TO OB-SERVE THE ADVICE IN THIS INFORMATION SHEET AND THE OPERATING CONDITIONS SPECIFIED IN THE PRODUCT DATA SHEET/CATALOGUE COULD RESULT IN HAZAR-DUOUS SITUATIONS.

# 1. MATERIAL CONTENT AND PHYSICAL FORM

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials and can be divided into two groups.

- a) Printed circuit types and low cost audio types which employ all plastic insulators and casings.
- b) Rugged, Fire Barrier and High Reliability types with metal casings and either natural rubber, synthetic rubber, plastic or glass insulating materials.

Contact materials vary with type of connector and also application and are usually manufactured from either copper, alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

# 2. FIRE CHARACTERISTICS AND ELECTRIC SHOCK HAZARD

There is no fire hazard when the connector is correctly wired and used within the specified parameters.

Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must be broken by separating mated connectors as this may cause arcing, ionisation and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, broken strangs of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the Product Data Sheet/ Catalogue are exceeded and can cause breakdown of insulation and hence electric shock.

If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires, and leakage currents through carbonisation of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

#### 3. HANDLING

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers.

Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

#### 4. DISPOSAL

Incineration of certain materials may release noxious or even oxid fumes.

#### 5. APPLICATION

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts on an unmated connector. Voltages in excess of 30 V ac or 42.5 V dc are potentially hazardous and care should be taken to ensure that such voltages can not be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts of insulators, no solder blobs. loose strands, conducting lubricants, swarf, or any other undersired conducting particles. Insulation resistance should be checked to make certain that no low resistance joints or spurious conducting path are existing between contacts and exposed metal parts of the connector body. Further the contact resistance of the connectors should be measured within the electrical circuit in order to identify high resistances which result in excessive connector heating.

Always use the correct application tools as specified in the Data Sheet/Catalogue.

Do not permit untrained personnel to wire, assemble or tramper with connectors.

For operation voltage please see appropriate national regulations

#### IMPORTANT GENERAL INFORMATION.

Air and creepage paths/Operating voltage
 The admissible operating voltages depend on the
 individual applications and the valid national and
 other applicable safety regulations.

For this reason the air and creepage path date are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

#### 2. Temperature

All information given are temperature limits. The operation temperature depends on the individual application.

### 3. Other important information

Cannon continuously endeavours to improve their products. Therefore, Cannon products may deviate from the description, technical data and shape as shown in this catalogue and data sheets.

Harnessing and Assembly Instructions
 If applicable, our special harnessing and/or assembly instruction has to be adhered to. This is provided at request.

ITT Cannon manufactures the highest quality products available in the marketplace; however these products are intended to be used in accordance with the specifications in this catalog. Any use or application that deviates from stated operating specifications is not recommended and may be unsafe. No information and data contained in this catalog shall be construed to create any liability on the part of ITT Cannon. Any new issue of this catalog shall automatically invalidate and supersede any and all previous issues. A limited warranty applies to ITT Cannon products. Except for obligations assumed by ITT Cannon under this warranty, ITT Cannon shall not be liable for any loss, damage, cost of lepairs, incidental or consequential damages of any kind, whether or not based on express or implied warranty, contract, negligence or strict liability arising in connection with the design, manufacture, sale, use or lepair of the products. Product availability, prices and delivery dates are exclusively subject to our respective order confirmation form; the same applies to orders based on development samples delivered. This catalog is not be construed as an offer. It is intended merely as an invitation to make an offer. By this publication, ITT Cannon does not assume responsibility or any liability for any patent infringements or other rights of third parties which may result from its use. Reprinting this catalog is generally permitted, indicating the source. However, ITT Cannon's prior consent must be obtained in all cases.

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